

COLUMBIA COUNTY ADOPT-A-STREAM NEWSLETTER No. 54a March 3, 2008

Mullins Pond a Continuing Sedimentation Issue

An investigation of the heavy sediment flow in **Reed Creek** in February prompted AAS volunteer **Loren Waldo** to make inquiries. Following an appropriate 311 call by Loren, a County stormwater employee contacted him and then accompanied him to **Mullins Pond**. Work on the pond was still in progress, but prior work had been delayed because of EPD regulatory reviews.

This is not the first time a complaint has been registered. An earlier heavy flow of water near Lakeside Middle School, without sediment however, was recorded and noted in an earlier issue of the Newsletter. **Don Bartles** tracked the flow to a release from the pond, but also noted that some sediment came from an overflow of a retention pond in the wetlands adjacent to **Washington Commons**.

Drainage Basin Advisory Council Meets

Members of this council met for over an hour recently in the Water Department's meeting room, with staff members **Margaret Doss**, **Jac Palmer**, and **Billy Clayton**, as well as AAS members **Sam Booher** and **Loren Waldo**, attending as the only members of the public. Mr. Clayton welcomed the new members and explained the purpose of the Council. Officers were then elected. **Bo Slaughter** was elected chair and **Mike Rorick**, vice-chair. Your editor, **John Graham**, was elected as secretary, but **Margaret Doss** will do most of the supportive work. The next meeting is scheduled for the second Thursday of March at 2 PM. A request to examine the issues surrounding Mullins Pond (see story above) was requested by Graham, along with a review of past actions by the earlier members of the Council.

Bacterial Resistance Studies Update

Jason Andrus, the **Augusta State University** microbiologist, had a computer breakdown in December. The computer, containing the vital bacterial resistance to antibiotics, were imprisoned on the computer and therefore are still not available. Jason did carry out more samplings since then, but antibiotics for further study were not yet available for the kind of data we crave. Keep hoping!

Digital Rain Recorder Maintenance

Volunteers with digitals, reset your unit now before the next rain. You can set the cumulative counter back to zero (along with earlier readings as well). When you poke a fine wire or equivalent into the reset hole, you may find also, however, that you have to press the search key for the house unit to find the field unit. It may blink alarmingly at first, but ultimately it makes the connection. Secondly, when you go to Daylight Saving Time, do not reset the clock/calendar in your recorder: it should remain on Standard Time, as is the custom of the Weather Service.



Pupal Cocoon of Net-Spinning Caddisfly
(Trichoptera/Hydropsychidae) on Rock
at Jones Creek, March 2

Alerts:

Fresh chemicals for the year will be distributed March 4 to the various team leaders. Old chemicals will be picked up.

A heavy storm is expected so **profile lines should be sequestered** to avoid destruction by water or floating branches and other vegetation.

A **fundraiser** is being considered for April. New equipment is needed to put us more on a par with Regulatory.

Macro Samples in Aquarium

Atlanta, eat your heart out! We now have our own aquarium! Yes, a bit smaller: the **Mayfields** have set up a tank that is now holding macroinvertebrates—mostly from **Jones Creek**, but one or two also from **Euchee Creek**. A pregnant scud from Euchee gave birth overnight in your editor's care to over twenty babies. They were placed in the tank along with Jones Creek mayflies, odonates, some **young mussels** (never of the size collected before from the banks), a couple of **mayflies**, a single **Asiatic clam** (although over 230 collected), and the **caddisfly** (*photo*, above). A **soldier fly** from **Jones Creek** was temporarily retained for further study, but will likely be added. As far as we know it is the only soldier fly collected by us in Columbia County.



Cody fills the Imhoff cone under watchful eyes of Mike & Robin..

Macro Assessments and Activities

Mike and Robin Reardon told us about a critter they failed to retain for further study: a possible transparent **glass shrimp** (*photo*) found at **Euchee Creek 4**. It could be the first one reported in Columbia County. Usually 2 inches or less in length, some similar creature, perhaps three times that size, was found in **Spirit Creek**, Richmond County, some years ago. Those specimens were not retained or identified either.

Mike and Robin were introduced to a new volunteer, **Cody Coulson**, at Euchee Creek this past weekend. John had the enthusiastic help of new volunteer **Ayman Fadel** at **Reed Creek 1A**. Hopefully he can also serve as a SWAT member, to fill in for others at times. At **Jones Creek 2B** **Zuliana Salerno** was fortunate to have the help of **Sam Booher** and John Graham, but also **Dwight Jones** and his two sons, **Garrett** and **Dillon**. The Joneses had not been available for nearly 6 months.

Coordinator and Columbia County Adopt-a-Stream Honors

Columbia County Adopt-a-Stream coordinator **John Graham** was recognized by **Georgia Adopt-a-Stream** as the State Volunteer of the Year 2007 at the Georgia River Network Conference in Rome, Georgia. John organized Columbia County Adopt-a-Stream in 2002. The first newsletter was published in 2003. A certificate was presented February 22 by **Allison Hughes** (*photo*). John was nominated by **Savannah Riverkeeper Frank Carl**.

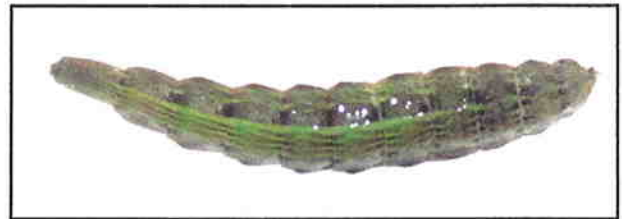
Coincidentally, and without knowledge of the above plans, **Columbia County** was preparing to recognize our overall activity as the "Volunteer of the Month". Look for the write-up in the April issue of **Columbia County Magazine**.

Your editor wishes to make it very plain that all of the volunteers who have served industriously, good weather and bad, starting in 2002, have made this organization what it is. In those earlier days **Frank Carl** and **Ginny Brady** trained us, and a few times **Martinez Fire Rescue** hosted our own training sessions after John Graham became a trainer himself. **Barry Smith** of **Columbia County's Community & Leisure Services Division** has very generously paid for supplies, equipment, and costs of more remote training sessions.

Three of the earliest persistent volunteers were **Brenda Ricketson**, **Kelsey Keough**, **Brandon Coursey**, **Steve Smith**, and **Judy Gordon**. Stalwart Judy continues with us. Many others still show interest.



Freshwater Prawn: Possible Glass Shrimp (Decapoda/Palaemonidae/Palaemonetes sp.?) at Euchee Creek, March 2



Soldier Fly (Diptera/Stratiomyidae/Odontomyia sp.) Recovered from Jones Creek March 3



ASSIGNMENTS

Letters following names indicate certifications of participants, as presently known. Some were certified in December/January/ February, and some in June/July/August: g or v=Getting Started (Update/Orientation, with introduction to visual surveys and watershed studies); c=chemical/physical; b=biological (macros); t=trainer. Each number following the letter is the month of certification in that skill. In some cases persons who didn't take the Getting Started workshop may have gotten some of the visual survey training elsewhere (as at the Educational Forest in Richmond County with **Frank Carl**) or at Phinizy Swamp Nature Center.

Column B identifies the type of stream bottom – and hence the type of collection nets used for macros: “R” for rocky bottoms; “S” for sandy or silty bottoms. Some bottoms are a mix (“RS”). With low levels in our streams, seines may be introduced more often. at emerging riffle points Letters in the K column identify by letter the particular shallow-water chemical kits used and retained. Nitrate and phosphate kits are identified by letter in the T column. Letters in the C column identify conductivity units. Known/suspected visit dates are given in monthly columns. **Gloves should be used for all operations, but especially nitrate & O₂.**

Request and record averaged rainfall data 0-24 hrs, 24-48 hrs, 48-72 hrs, prior from John Graham before completing reports. New forms for such data (visual, chemical, biological) will be provided as needed, but the data can be noted on the older forms anyway.

Use the “buddy” system when getting DO, pH, temperatures. One buddy should be certified. Especially verify titration readings.

Stream	Team Leaders and Assisters	B	K	T	C	Leader Phone	Usual Day/Time	Jan	Feb	Mar	Apr
Betty's Branch Site 3	Judy Gordon (vc1b8b2) Dennis McClendon (c1b3) Occ: Terry Shipe, C. Niemeyer, D. Lewis	R	E	B	F	650-8314	Last week weekday	CV 24?	CB 12-14	C 20?	CV 22?
Euchee Ck 4	Michael (cb1)/Robin (c1) Reardon Jim and Anna Mayfield* Cody Coulson*	S	M	B	F	627-5226	3 rd Sat Dec: ?	CV 19	CB 1 Mar (Rain)	C 22	CV 24
Mill Branch Site 1	Zuliana Salerno (c4b3), Maria Mike Piper*	S R	C	C	B	650-72	2nd Sat	CV 19?	CB 9	C 8	CV 12
Jones Creek Site 2B	Zuliana Salerno (c4b3) Mike Piper* for Feb, Mar? Macros: Maria Dwight/Dillon/ Garrett Jones	S R	C	C	B	650-7634	4 th Sat	CV 21?	CB 1,2 Mar (Rain)	C 22	CV 26
Reed Creek Site 1A	John Graham, temp. leader (t) Rebekah Ivey*, Ayman Fadel* Macros: Glenn/Evan Krenz?	R S	G	A	E	829-3093 cell	2 nd Sat	CV 12	CB 16	C 15	CV 17
Reed Creek Site **	John Graham, temp. leader (t) Macros: Sam Booher (vbc)?	R S	G	A	E	868-0296	Mon-days?	-	-	C 24?	CV 21?
Reed Creek Site 4	Ray Sprankle (c1b2) Andrew Sprankle (c1b2) Michelle Zupan (c1b2)	R S	A	A	C	855-6248	3 rd Sat	CV 19	CB 2 & 16	C 15	CV 17
Marshall Ck Site 1	Sam Booher (vbc) or John Graham Macros: Loren Waldo (v6bc)	S R	B	A	E	854-9195	Wednes-days or as possible	CV 27	-	C 26?	CV 23?

* New volunteerA

** A new site is to be established–possibly near Washington Commons.

Streamwalk Again Delayed

The recent streamwalk was called off again because of rainfall exceeding 0.1 inch in the preceding 72 hours.. New commitments were not available at press time.

February Rainfall

Note: Use average below for Columbia County!

2007 monthly rainfalls. May is the driest of the first 8 months. Normally November is the year's driest. This February's average is given below.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Rain Total	4.215	3.178	5.082	1.978	0.651	5.375	4.401	2.377

February was wetter than last month. Recordings were seen as more in error as participants in some cases miscounted look-backs on their remotes. Rains in green were moved forward one day; rains in blue were moved back one day. Some recordings--those shown in red--were patently in gross error, and therefore discounted.

Days in blue are suitable as "wet" bacterial sample collection days. Days in red are suitable as "dry" bacterial sample collection days--provided samples are collected prior to any rain reported on such days; these are marked here red but with an asterisk.. A "dry" collection day has been preceded by at least 72 hours of rain less than 0.1". A "wet" collection day has been preceded by a least 72 hours of no rain, followed up by at least 0.1" of rain. Note that these limits are applied particularly for stream walks locally, instead of 0.2" for bacterial samples under EPD rules. An "e", "a", or hat "^" before a reading indicates an apportioned estimate, where total is accurate.

NOTE: Air pressures at 10 AM for Saturdays and selected other days are provided. They are averages of the Petersburg and West Lynne sites. Station hours are 00-24 or 07-07 (to prior day).

Day (2006)	Air Pressure 10 AM	Bridlev'd (Graham)	WestLake (Frisher)	Woodstock (Cuppes)	Jim Mayfield The Pass	Clanton Woods Gordon	Wash'n Joe (Wisem'n)	Tyler Dr. (Mann)	Zuliana Salerno	Wellington SD Evans	Junction Routes 232/383 J N	West Lynne WL	Petersburg Rd OP	Old Reed Creek Tr PI R CI	Little River Tr Pant L R	Crawford Creek C C	Point Comfort Tr Plant P C	Columbia County (Average 13)	Harlem Pumpkin Center HM	Clark's Hill Tr. Plant C H	Daniel Field	Bush Field
SEP		0.87	?	0.55		1.95	2.72	"		2.15	1.95	1.89	1.72	1.43	1.10	1.77	0.84	1.624	"	0.95	2.24	1.44
OCT		0.99	1.15	0.71		0.70	?	0.59		1.04	0.86	0.95	0.96	0.71	1.65	1.11	1.19	0.96	0.59	2.05	1.37	1.60
NOV		0.16	0.25	0.16		0.30	0.36	0.17		0.26	0.34	0.32	0.30	0.24		0.20	0.32	0.256	0.35	0.98	0.41	0.41
DEC		5.16	6.00	5.47		6.30	6.06	4.57	7.20	N/A	6.25	7.38	5.60	6.14	6.75	5.59		6.504	6.02	5.67	7.09	7.51
JAN		2.85	3.32	"		3.55	4.14	3.09	2.95	3.22	2.84	2.93	3.02	3.33	5.1	3.17	3.40	3.263	3.61	3.68	3.29	3.19
Hours-->		00-24	**	00-24	00-24	22-22	00-24	00-24	00-24	00-24	00-24	00-24	00-24	00-24	00-24	07-07	07-07		00-24	00-24	00-24	00-24
Feb 1		0.79	0.75	0.83	0.75	1.05	0.12	0.79	0.87	0.69	0	0.75	0.75	0.79	N/A	0.83	0	0.803	0.91	1.06	0.66	
Feb 2	30.34																					
Feb 3																						
Feb 4				Trace		Trace					0.04										Trace	Trace
Feb 5										0.02	0.45	0.43	0.46									
Feb 6		0.43	0.43	0.38	0.47	0.55	0.47	0.35	0.51	0.02				0.55		0.51	0.46	0.461	0.47	0.43	0.46	0.42
Feb 7								0.04								0.91		0.003				
Feb 8-11	30.02																					
Feb 12																						
Feb 13			Trace	Trace	0.12	Trace		Trace					0.01					0.010				Trace
Feb 14																						
Feb 15																						
Feb 16	30.22																					Trace
Feb 17		0.55	0.63	0.28	0.43	0.40	0.63	0.71	0.59	0.57	0.57	0.67	0.65	0.55		0.63	0.76	0.575	0.65	0.43	0.70	0.48
Feb 18		0.79	0.94	0.94	1.34	1.20	1.16	0.91	0.98	0.80	0.94	0.91	0.90	1.02		0.91	0.97	0.981	1.19	1.34	0.67	0.63
Feb 19																						
Feb 20																						
Feb 21		0.63	0.75	0.55	0.47	0.60	0.79	0.24	0.75	0.65	0.66	0.71	0.72	0.79		0.71	0.92	0.663	0.65	0.47	0.83	0.47
Feb 22		0.35	0.47	0.55	0.59	0.65	0.54	0.55	0.39	0.37	0.39	0.43	0.47	0.63		0.91	0.39	0.512	0.48	0.59	0.66	0.65
Feb 23	29.93																					
Feb 24																					Trace	Trace
Feb 25																						
Feb 26		0.55	0.35	0.59	0.39	0.60	0.36	0.35	0.39	0.49	0.38	0.39	0.37	0.43		0.39	0	0.431	0.42	0.39	0.48	0.54
Feb 27																						
Feb 28																						
Feb 29																						
FEB		4.09	4.32	4.12	4.56	5.05	4.07	3.94	4.48	3.61	4.93	4.29	4.34	4.48		4.89	N/A	4.439	4.79	4.83	4.50	3.84

March 1 air pressure (Petersburg only) at 10 AM: 39.29 (provided for those who were rain-delayed from Feb 23)

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